UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

In claim 1, the limitation "replacing the code in the data with <u>corresponding</u>

<u>terms</u> in the storage module, prior to displaying the data" makes the claim ambiguous,

as it is not clear what constitute "<u>corresponding terms</u>"

In claim 2, "data in the storage module lacks prior antecedent basis in the claim.

In claim 3, it is not clear and adequately disclosed how the storage module in

the device is periodically <u>replaced to contain an often-used set of terms</u>.

Claim Rejections - 35 USC § 103

2.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

3.   Claims 1, 2, 4, 5, 6 and 7 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Cannon et al. (5,974,447) in view of Heie (6,4,73,621).

Regarding claim 1, Cannon discloses a method of using a storage module in a

device, comprising: receiving data in response to a request sent by the device (see col.

1, lines 34-65). Cannon teaches using dynamic codes instead of a static lists of canned

codes for reducing the amount of information sent (see col. 3, lines 41-64) and as

illustrated in Fig. 2, the selective call transceiver has display capabilities (see col. 4,

lines 16-47), but fails to specifically teach automatically identifying an automatically

substituted code in the data and replacing the code in the data with corresponding

terms in the storage medium prior to displaying the data.

Heie discloses a an apparatus, which detects matches to strings (codes) marked

for substitution and subsequently replaces the stings with a corresponding expansion

strings of text or other audio-visual data (see col. 1, line 61 to col. 2, line 21, col. 5, lines

53 to col. 6, line 30).

It would therefore have been obvious to one of ordinary skill in the art to

combine the teaching of Heie with Cannon's information distribution system in order to

use shortcut codes for sending messages for substantial bandwidth reduction in

providing information to desired users.

Regarding claim 2, Cannon suggests providing a mobile user with updated

information (see col. 1, lines 13-31), the combination of Cannon and Heie fails to

specifically teach periodically updating the data in the storage module, however, since

Cannon teaches providing information in a store-and-forward system that takes

advantage of low cost non-real time transmissions, it would have been obvious to one of

ordinary skill in the art to provide for the periodic updating of information of information

available to users.

Regarding claim 4, the combination of Cannon and Heie further shows as

taught by Heie, wherein a term may comprise one or more of the following: a word, a

phrase, a graphic element, an image, graphic animation sequence, video clip, sound

clip, applet, or BLOB (see Figs 2A and 2B).

Regarding claim 5, the combination of Cannon and Heie shows as taught by Heie, the feature of storing a plurality of code-term pairs in the storage module and inserting the storage module into the device (storage in Fig. 1B).

Regarding claim 6, Cannon's teaching of allowing a substantial reduction in the bandwidth required for a user to select specific information (see col. 4, lines 40-47), meets data being received in the device over a low bandwidth wireless connection.

Regarding claim 7,Cannon further shows wherein the storage module is inherently a device selected from among the following: a Flash memory, a Clik! Disk, an EEPROM, a magnetic storage device, an IBM MicroDrive, an optical storage device (see col. 5, lines 59-63).

4.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al in view of Heie as applied to claim 1 and further in view of **Davani (6,208,839).**

Regarding claim 3, the combination of Cannon and Heie fail to explicitly teach periodically replacing the storage module in the device to contain an often-used set of terms.

Davani shows periodically updating the data in the storage module (feature of notifying a user of recent additions by highlighting new urls with the word "NEW", col. 7, lines 18-32),

Since Davani shows periodically notifying a user of recent additions, it would have been obvious to one of ordinary skill in the art to ensure the availability of often used terms in a replaceable storage module in order to properly use available storage

resources by reducing the amount of data that needs to be updated in the system of Cannon and Heie.

5.   Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cannon et al and Heie as applied to claim 1, above, and further in view of **Schroeder et al. (6,405,060).**

Regarding claims 8 and 9 the combination of Cannon and Heie fail to teach the feature of a statistic gathering logic for gathering statistics about the frequency of occurrence of each code and of each term in the storage module and the data respectively and transmitting the statistics for updating contents of the storage module or identifying which codes are used.

Schroeder discloses an improved user interface for a cellular telephone system with several functions including a predictive keyboard capable of inputting and displaying to a user the most commonly used characters for selected words in a particular language (see col. 1, lines 40-59), including the use of statistical analysis of sample text to determine characters for display (see col. 5, lines 19-45). Schroeder teaches an embodiment in which a user is allowed to enter a list of words that the user frequently uses in messages and also build a character frequency table from the set of words or the phone comes a pre-defined set of character frequencies which may be modified by analyzing the character frequencies of messages entered by a user over time so that the table of frequencies automatically adapts to the types of words used by the user (see col. 5, lines 46-55), which suggests the capability of statistics gathering for modification or updating purposes as desired.

It would therefore have been obvious to one of ordinary skill in the art to combine Schroeder's teaching of statistical analysis with the system of Cannon and Heie in order to use statistical analysis for providing identification and/or updating or modification of stored data or information such as codes on an as needed basis.

6.   Claims 10, 14, 15, 16, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pepe et al. (5,673,322)** in view of Heie **(6,473,621).**

Regarding claim 10, Pepe discloses a service provider for providing data to a device and a portable device (52) having a low bandwidth connection to a network to receive formatted Web content in response to a request (see Fig. 2, col. 7, lines 10-44), the service provider including a database (inherent in WWW (Internet 68, remote proxy 66) and formatting logic to retrieve data in response to a request from the device (see col. 5, line 46 to col. 6, line 29) and transmission logic to transmit the data to the device (see col. 8, lines 6-16). Pepe further teaches the capability of a laptop computer or PDA to have direct access to the WWW from a mobile (wireless) terminal (col. 6, lines 65-67), and that protocol translations are carried out between the local proxy in the user terminal and the remote proxy in order to allow standard web browsers to support low band-width web browsing (see col. 7, lines 15-44).

Heie discloses a an apparatus, which detects matches to strings (codes) marked for substitution and subsequently replaces the stings with a corresponding expansion strings of text or other audio-visual data (see col. 1, line 61 to col. 2, line 21, col. 5, lines 53 to col. 6, line 30).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Heie with the system of Pepe in order to ensure the conservation communication link capacity with efficient available spectrum utilization while making information over the world wide web available to desiring subscribers.

Regarding claim 14, the combination of Pepe and Heie fail to teach data in the database is periodically updated.

However, examiner takes Official notice that it is well known in the art to update information stored in a database periodically and as such it would have been obvious to one of ordinary skill in the art to provide for the periodic updating of stored information in order to provide current information services to desired users on demand.

Regarding claim 15, Pepe discloses a portable device (52) capable of having a low bandwidth connection to a network to receive formatted Web content in response to a request see col. 5, line 46 to col. 6, line 29). Pepe further teaches the capability of a laptop computer or PDA to have direct access to the WWW from a mobile (wireless) terminal with the mobile terminal inherently having a storage module (col. 6, lines 65-67), and that protocol translations are carried out between the local proxy in the user terminal and the remote proxy in order to allow standard web browsers to support low band-width web browsing (see col. 7, lines 15-44), which read on the feature of the bandwidth of data transferred over the low bandwidth connection being reduced. Pepe fails to teach the portable device having a plurality of codes and associated terms in the storage module, and substitution logic to automatically replace a term in a data with a

code and transmitting the data including the code to the device in order to reduce to the

bandwidth of the connection by transmitting the codes instead of the associated data.

Heie discloses a an apparatus, which detects matches to strings (codes) marked

for substitution and subsequently replaces the stings with a corresponding expansion

strings of text or other audio-visual data (see col. 1, line 61 to col. 2, line 21, col. 5, lines

53 to col. 6, line 30).

It would therefore have been obvious to one of ordinary skill in the art to

combine the above teaching of Heie with the system of Pepe in order to ensure the

conservation communication link capacity with efficient available spectrum utilization

while making information over the world wide web available to desiring subscribers.

Regarding claim 16, Pepe's Fig. 2, shows that the low bandwidth connection is a

wireless connection.

Regarding claim 17, the combination of Pepe and Heie show that the storage

module is a built in device as taught by Heie (storage being built into the portable device

see Fig. 1B).

Claim 22 is rejected for the same reasons as set forth in the rejection of claims

10 and 15 above. In addition Pepe's Web browser 52 of Fig. 2 meets displaying data on

the device.

7.   Claims 11-13, 20, 21 and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Pepe et al and Heie** as applied to claims 10 and 15 above, and

further in view of **Schroeder et al. (6,405,060).**

Regarding claims 11 and 20, the combination of Pepe and Heie fail to teach statistic gathering logic for gathering statistics about the frequency of occurrence of each code and of each term in the storage module and the data respectively and transmitting the statistics for updating contents of the storage module or identifying which codes are used.

Schroeder discloses an improved user interface for a cellular telephone system with several functions including a predictive keyboard capable of inputting and displaying to a user the most commonly used characters for selected words in a particular language (see col. 1, lines 40-59), including the use of statistical analysis of sample text to determine characters for display (see col. 5, lines 19-45). Schroeder teaches an embodiment in which a user is allowed to enter a list of words that the user frequently uses in messages and also build a character frequency table from the set of words or the phone comes a pre-defined set of character frequencies which may be modified by analyzing the character frequencies of messages entered by a user over time so that the table of frequencies automatically adapts to the types of words used by the user (see col. 5, lines 46-55), which suggests the capability of statistics gathering for modification or updating purposes as desired.

It would therefore have been obvious to one of ordinary skill in the art to combine Schroeder's teaching of statistical analysis with the system of Pepe as modified by Heie in order to use statistical analysis for providing identification and/or updating or modification of stored data or information such as codes on an as needed basis.

Regarding claim 12, the combination of Pepe and Heie fail to teach an analyzing logic to analyze statistics and determine a set of useful terms for inclusion in the database.

Schroeder further teaches the use of statistical on a sample text of a particular language and the capability of automatically being able to modify the table of character frequencies to adapt to the types of words used by the user (see col. 5, lines 19-55). It would have been obvious to one of ordinary skill in the art to use the teaching of Schroeder with the system of Pepe and Heie in order to dynamically adapt the stored data or codes to a user's preference.

Regarding claims 13 and 21, the combination of Pepe, Heie and Schroeder suggests statistics gathering for modification or updating purposes as desired (see Schroeder, col. 5, lines 19-55).

Regarding claim 24, the combination of Pepe, Heie and Schroeder shows updating the storage module by using a higher bandwidth connection, as selected from among the following: a wireless connection, a docking station based connection, an infrared connection and a direct connection to a network as taught by Pepe (see Fig. 2).

8.   Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pepe et al** and Heie as applied to claim 15 above, and further in view of **Kovanen et al. (5,448,765).**

Regarding claim 18, the combination of Pepe and Heie fail to specifically teach that the storage module is a removable device.

The use of removable storage devices in portable electronic devices such as a radio telephone is very well known in the art as taught for example by Kovanen. Kovanen discloses a radio (e.g. a radiotelephone having a removable memory means for (see abstract). According to Kovanen, the use of the removable memory means facilitates the updating of the radiotelephone with new functions or tailored accordance with the special requirements of the user or the system (see col. 2, lines 25-41). By configuring the radiotelephone with at least on a system-specific basis the control parameters the user is able to change radio systems in an easy and reliable manner and facilitates the use of an existing radiotelephone in other radiotelephone systems and that switching on the removable memory enables easy updating of software of a radio telephone (see col. 2, lines 42-67) and in which the removable memory can be any removable memory suited for the purpose depending on the storage capacity needed such as SRAM modules (see col. 3, line 57 to col. 4, line 7).

It would therefore have been obvious to one of ordinary skill in the art, to use the above teaching of Kovanen by using a removable memory means with the system of Pepe and Heie for the benefit of being able to provide easy updating of the telephone with new functions and information as desired, based on storage capacity needs

Regarding claim 19, the combination of Pepe and Heie fail to teach that the storage device is selected from among the following a flash memory, a Clik!, an EEPROM, a magnetic storage device, an IBM MicroDrive and an optical storage device (RAM, 114, Figure 7).

Kovanen teaches a radio (e.g. a radiotelephone having a removable memory means for (see abstract), in which the removable memory can be any removable memory suited for the purpose depending on the storage capacity needed such as SRAM modules (see col. 3, line 57 to col. 4, line 7).

It would therefore have been obvious to one of ordinary skill in the art, to use the above teaching of Kovanen by using any removable memory means with the system of Pepe and Heie for the benefit of being able to provide easy updating of the telephone with new functions and information as desired, based on storage capacity needs of the user.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free).

CA
June 1, 2004

CHARLES APPIAH
PRIMARY EXAMINER